

We claim:

1. An endoscope head equipped with a plurality of function-related units comprising units such as an optical/lens system, illuminating elements, rinsing nozzles and/or the like, wherein the endoscope head comprises a number of modular function-related supports that receive and/or form the function-related units.

2. An endoscope head according to claim 1, wherein the function-related supports are adapted to correctly place or make operative the function-related units preferably automatically by assembling the function-related supports.

3. An endoscope head according to claim 2, wherein the function-related supports preferably have elastically deformable connecting portions adapted to be brought into predetermined engagement with each other for a snap and/or clamping connection.

4. An endoscope head according to claim 1, comprising the following function-related supports:

a plate-shaped support member for receiving electronic components;  
15 a retaining/holding element for an optical/lens system having at least one lens;  
a protection cap for covering the retaining/holding element and the support member;  
and  
a mounting adapter for attaching the endoscope head to an endoscope shaft.

5. An endoscope head according to claim 4, wherein the mounting adapter is adapted to provide and/or enable a connection between conduits and/or passages formed in the endoscope shaft and the function-related units of the endoscope head.

6. An endoscope head according to claim 5, wherein the mounting adapter further comprises electrical contact points to which electrical lines in the endoscope shaft can be connected.

7. An endoscope head according to claim 6, wherein on a first side facing the mounting adapter the function-related support has electrical contact surfaces adapted to be brought into contact with the electrical contact points of the mounting adapter when the function-related support is assembled with the mounting adapter, wherein electronic components arranged on a second side of the function-related support opposite to the electrical contact surfaces may be supplied with electric current by the electrical contact points via the electrical contact surfaces.

8. An endoscope head according to claim 7, wherein the retaining/holding element for the optical/lens system is attached to the first side of the function-related support on which is arranged the electronic components and which includes at least one chamber receiving the optical/lens system which is open toward a side of the retaining/holding element facing the protection cap and which is aligned with the function-related support above a camera chip provided in the function-related support when the function-related supports are assembled.

15 9. An endoscope head according to claim 4, wherein the material of the retaining/holding element is softer and/or more elastic than the material of the protection cap.

10. An endoscope head according to claim 8, wherein a tiltable and/or rotatable mirror and/or prism device which is movable with respect to the chamber receiving the optical/lens system to optionally deflect light rays lying outside the normal area of incidence of the optical/lens system provided in the chamber to the optical/lens system.

20 11. A mounting adapter for an endoscope head according to claim 1, wherein the mounting adapter is adapted to form a mechanical connection between the endoscope head

and an endoscope shaft, and to provide and/or ensure a connection between conduits and/or passages formed in the endoscope shaft and function-related units of the endoscope head.

12. A mounting adapter according to claim 11, wherein the mounting adapter comprises an outer substantially cylindrical sleeve and a coaxial inner substantially cylindrical sleeve which is connected preferably integrally with the outer sleeve through profiled radial bracings, wherein the radial bracings provide and/or ensure at least partly, connection of conduits and/or passages with the function-related units.

13. A mounting adapter according to claim 12, wherein a mounting plate is formed on a first side of the mounting adapter to which the endoscope head is mountable, and wherein the mounting plate comprises mechanical and electrical connectors to form connections with the endoscope head.

14. A mounting adapter according to claim 13, wherein the electrical connectors of the mounting plate are provided as flexible contact arms formed in the mounting plate which further comprise electrical contact points projecting above the surface of the mounting plate.